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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/005,482	11/07/2001	Kenneth L. Davis	31008.P033	7199

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EXAMINER

HARTMAN JR, RONALD D

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 09/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/005,482

Applicant(s)

DAVIS, KENNETH L.

Examiner

Ronald D Hartman Jr.

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24, 28-33, 37-45, 47-54 and 56-57 is/are rejected.
- 7) ☒ Claim(s) 27, 36, 46 and 55 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-57 are presented for examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 11, 21, 30, 40 and 49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 2, 11, 21, 30, 40 and 49, the specification does not disclose the updating of the determined time value, rather the specification only discloses that 3-D CAD models are updated based on underlying sketches, and so forth (page 7, lines 14-16). Therefore, the aforementioned claims are indefinite since there is no evidence to support the actual updating of the determined time value.

Claims 9, 18, 28, 37, 47 and 56 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claims 9, 18, 28, 37, 47 and 56, the examiner is unsure as to why the applicant would need to determine the time to complete the CAD model if the actual time to complete the CAD model is already known. That is, if the actual time value is already known, why would the disclosed system need to determine the time value for completion of the CAD model, since as already mentioned, this information is already known.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As per claims 1-19, the claimed invention does not fall within the technological arts since a method is claimed that does not require computer implementation or use computer technology to accomplish the steps of the method. See MPEP 2106.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-2, 7, 9-11, 16, 18, 20-21, 26, 28-30, 35, 37, 39-40, 45, 47-49, 54 and 56 are rejected under 35 U.S.C. 102(b) as being anticipated by Sachs, U.S. Patent No. 6,021,358.

As per claims 1, 9-10, 18, 20, 28-29, 37, 39, 47-48 and 56, Sachs teaches a method comprising:

- accessing computer aided design (CAD) model information corresponding to a CAD model (i.e. Figure 1 and C10 L3-7 and C10 L21-25); and
- determining a time value corresponding to the CAD model information based at least upon a complexity value associated with the CAD model, wherein the time value facilitates scheduling for completion of the CAD model (Examiners Note: "completion of the CAD model" is interpreted to mean the completion of the actual object which the CAD model pictorially represents)(i.e. claim 32).

As per claims 2, 11, 21, 30, 40 and 49, updating CAD models based on changes made by a designer is a feature that is inherent to the disclosed functions and or capabilities of Sachs disclosed system since this is the main advantage of using computer aided designing techniques, that is, to allow for modifications by a designer to be made easily without actually needing to tangibly produce the design.

As per claims 7, 16, 26, 35, 45 and 54, Sachs teaches CAD information accessing one or more operations (i.e. C11 L1-7, milling or laser cutting).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-4, 12-13, 22-23, 31-32, 41-42 and 50-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sachs, as applied to claims 1, 10, 20, 29, 39 and 48 above, in view of Rappoport, U.S. Patent No. 6,614,430.

As per claims 3-4, 12-13, 22-23, 31-32, 41-42 and 50-51, Sachs does not specifically teach a user identifier and a user log associated with the user identifier.

Rappoport teaches a user log that details the actions by the designer (e.g. user) when using a CAD system (i.e. C 13 L17-25).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Rappoport into the teachings of Sachs for the purpose of allowing the precise changes, modifications or actions by the designer to be documented so that this information may be made available in the event that a designer would like to sequentially step through completed actions at a

later time, and this would have been obvious to one of ordinary skill in the art at the time the invention was made.

Furthermore, it is noted that although Rappoport does not specifically teach receiving an indication of a user identifier, this process is well known in the art as simply "logging into a computer system" and this feature was well known in the art at the time the invention was made for the purpose of permitting only certain users (designers) access to CAD design programs and or functions of the CAD system. Therefore, since Rappoport teaches a user log, there would obviously be some way of ascertaining who the actual user (i.e. designer) is so that the user log would specific to a particular person, and this would have been obvious to one of ordinary skill in the art at the time the invention was made.

6. Claims 5-6, 14-15, 24-25, 33-34, 43-44 and 52-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sachs, as applied to claims 1, 10, 20, 29, 39 and 48 above, in view of Rappoport, U.S. Patent No. 6,614,430.

As per claims 5-6, 14-15, 24-25, 33-34, 43-44 and 52-53, Sachs does not specifically teach part types and part families.

Rappoport teaches a CAD system that utilizes part types and part families (i.e. Table 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have incorporated the teachings of Rappoport into the teachings of Sachs for the purpose of allowing parts to be created using templates (i.e. pre-configured shapes or designs) so that the design of intricate parts doesn't require the designer to actually design parts or features that are commonly employed during the design process, which saves time from a designing standpoint, and this would have been obvious to one of ordinary skill in the art a the time the invention was made.

7. Claims 19, 38 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sachs, as applied to claims 10, 29 and 48 above, in view of obviousness.

As per claims 19, 38 and 57, although Sachs does not specifically teach a predetermined complexity value for particular CAD models, it is a feature that would have been obvious to one of ordinary skill in the art at the time the invention was made since clearly Sachs teaches determining the time to build objects associated with complex CAD models whereby a sectioning algorithm is used to estimate the amount of time it will take to build or complete the object representative of CAD model by taking the CAD model and dividing into sections so that the sections are analyzed individually and then a computation is made, with respect to all of the sections, to determine the amount of time to complete the CAD model, based on the individual parts or sections that comprise the CAD model. Therefore, since an algorithm is used for estimating the amount of time to build the CAD model, a feature whereby each section is given a particular numerical value is considered to be simply a design choice that does not change or affect the overall operations and outputs of Sachs disclosed system, and for at least these reason(s), the aforementioned features would have been obvious to one of ordinary skill in the art at the time the invention was made.

Allowable Subject Matter

8. Claims 27, 36, 46 and 55 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As per claims 27, 36, 46 and 55, the prior art of record is silent with respect to a method for determining the amount of time to complete a CAD model wherein the amount of time determined comprises combining a complexity value and a user level value, in combination with the other claimed features and or limitations as claimed by the claimed invention.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald D Hartman Jr. whose telephone number is 703-

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308-7001, and after October 12, 2004, (571) 272 - 3684. The examiner can normally be reached on Mon. - Fri., 11:30 am - 8:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight can be reached on 703-308-3179, and starting October 12, 2004, at (571) 272 - 3687. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ronald D Hartman Jr.

Examiner

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A handwritten signature in black ink, appearing to read 'Anthony Knight', is positioned above the printed name.

Anthony Knight
Supervisory Patent Examiner
Group 3600